

WHAT IS CLAIMED IS:

1 1. A method for determining if a first and a second device are co-located,
2 comprising the steps of:
3 sampling a sample signal at the first device and responsively generating a
4 first representative signal of the sample signal;
5 sampling the sample signal at the second device and responsively
6 generating a second representative signal of the sample signal;
7 transmitting the second representative signal to the first device; and
8 comparing the first representative signal to the second representative
9 signal.

1 2. The method of claim 1, wherein the sample signal comprises an acoustic
2 signal.

1 3. The method of claim 1, wherein the sample signal comprises a light signal.

1 4. The method of claim 1, wherein the first and second representative signals
2 comprise a digitized signal of the sample signal.

1 5. The method of claim 1, wherein the step of comparing comprises
2 correlated envelope signal analysis of the first and second representative signal
3 to determine if the first and second representative signals are similar in form.

1 6. The method of claim 1, wherein the step of comparing comprises
2 harmonic frequency signal analysis of the first and second representative signal
3 to determine if the first and second representative signals are similar in form.

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1 7. The method of claim 1, wherein the step of comparing comprises cross-
2 correlating the first and second representative signal to determine if the first and
3 second representative signals are similar in form.

1 8. The method of claim 1, wherein the first device is a base station and the
2 second device is a remote device.

1 9. The method or claim 1, wherein the first device is a remote device and the
2 second device is a base station.

1 10. The method of claim 1, wherein the sample signal is generated by the first
2 device.

1 11. The method of claim 1, wherein the sample signal is generated by the
2 second device.

1 12. The method of claim 1, wherein the first and second device communicate
2 wirelessly.

1 13. A method for discriminating between data received from co-located and
2 non co-located devices, comprising the steps of:
3 receiving at a base station data from a remote device;
4 sampling a sample signal at the remote device and responsively
5 generating a first representative signal of the sample signal;
6 sampling the sample signal at the base station and responsively
7 generating a second representative signal of the sample signal;
8 determining if the base station and the remote device are co-located; and
9 processing the data received by the base station if the remote device is co-
10 located.

- 1 19. The system of claim 18, wherein the first and second sensor comprise an
2 acoustic sensor and the sample signal is an acoustic signal.
- 1 20. The system of claim 18, wherein the first and second sensor comprise a
2 photodetector and the sample signal is a modulated beam of light.
- 1 21. The system of claim 18, wherein the first device is a remote device and the
2 second device is a base station.
- 1 22. The system of claim 18, wherein the first device is a base station and the
2 second device is a remote device.
- 1 23. The system of claim 18, wherein the signal analysis device compares the
2 first and second signals in order to determine if the first and second devices are
3 co-located.
- 1 24. The system of claim 18, wherein the signal analysis device is coupled to
2 the first device.
- 1 25. The system of claim 18, wherein the signal analysis device is coupled to
2 the second device.
- 1 26. The system of claim 18, wherein the signal analysis device is coupled to a
2 third device, the third device known to be co-located with the first device.
- 1 27. The system of claim 18, wherein the signal analysis device is coupled to a
2 third device, the third device known to be co-located with the second device.

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1 28. A system for determining if a first and second device are co-located
2 comprising:
3 means for sampling a sample signal at the first device;
4 means for responsively generating a first representative signal of the
5 sample signal at the first device;
6 means for sampling the sample signal at the second device;
7 means for responsively generating a second representative signal of the
8 sample signal at the second device;
9 means for transmitting the second representative signal to the first device;
10 and
11 means for comparing the first representative signal to the second
12 representative signal.

1 29. A computer readable medium having embodied thereon a program, the
2 program being executable by a machine to perform method steps for
3 determining if a first and a second device are co-located, the method steps
4 comprising:
5 sampling a sample signal at the first device and responsively generating a
6 first representative signal of the sampled signal;
7 receiving from the second device a second representative signal of the
8 sample signal; and
9 comparing the first representative signal to the second representative
10 signal.

- 1 30. A method for discriminating between data received from co-located and
- 2 non co-located devices, comprising the steps of:
- 3 receiving at a remote device data from a base station;
- 4 sampling a sample signal at the base station and responsively generating a
- 5 first representative signal of the sample signal;
- 6 sampling the sample signal at the remote device and responsively
- 7 generating a second representative signal of the sample signal;
- 8 determining if the remote device and the base station are co-located; and
- 9 processing the data received by the remote device if the base station is co-
- 10 located.